

## PRODUCT AND PROCESS CHANGE NOTIFICATION

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**ISSUE DATE**: 17-Dec-2015 **NOTIFICATION**: 16961

TITLE: 1.2um IDR Technology Device PLCC 44/52/68/84 Cu Wire Qualification in Amkor Technology Philippines (ATP1)

**EFFECTIVE DATE**: 17-Mar-2016

# DEVICE(S)

MPN
MC68711E20CFNE2
MC68711E20CFNE3
MC68711E20MFNE2
MC68711E20VFNE2
MC68HC05B6FNE
MC68HC11E0CFNE2
MC68HC11E0CFNE2R
MC68HC11E0CFNE3
MC68HC11E0CFNE3R
MC68HC11E0MFNE2
MC68HC11E1CFNE2
MC68HC11E1CFNE2R
MC68HC11E1CFNE3
MC68HC11E1CFNE3R
MC68HC11E1MFNE2
MC68HC11E1MFNE3
MC68HC11E9BCFNE2
MC68HC705C8AFNE
MC68HCP11E0FNE
MC68HCP11E1CFNE2
MC68HCP11E1CFNE3
MC68L11E1CFNE2
MC68L11E1FNE2
MC68L11F1CFNE3
MCHC11F1CFNE2
MCHC11F1CFNE2R
MCHC11F1CFNE3
MCHC11F1CFNE3R
MCHC11F1CFNE4
MCHC11F1CFNE4R
MCHC11F1VFNE3

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# **AFFECTED CHANGE CATEGORIES**

- ASSEMBLY SITE
- · BILL OF MATERIAL CHANGE (SAME ASSEMBLY SITE)

# **DESCRIPTION OF CHANGE**

NXP Semiconductor announces the assembly site transfer for the parts with PLCC44/52/68 packages list in this notificatin from the current NXP KLM, Kuala Lumpur, Malaysia, assembly Facility to the Subcon Amkor Technology Philippines (ATP1), Muntinlupa, Philippines Facility with Cu wire conversion

NXP Semiconductor announces the addition of Copper Wire as a wire bond material for the products with PLCC84 package list in the notification.

The summary of the changes as shown in below table.

Package Description	LPN	Mask Set	Assembly Site Original		Wire Original	Wire New	Leadframe Original(mm)	Leadframe New(mm)	Mold Compound Original	Mold Compound New	Die Attach Original	Die Attach New
PLCC44	HC705C8A	M24Z	KLM	ATP1	1.3mils Au	1.0mils Cu	Solid Flag 5.08 x 6.858	Solid Flag 6.35 x 6.35	HITACHI GE1030F	Panasonic X8410KA-RC	ABLEBOND 8290	ABLESTICK 8361J
PLCC52	HC05B6	N20B	KLM	ATP1		1.0mils Cu			HITACHI GE1030F			

					1.3mils	<b>I</b>	Solid Flag	Solid Flag	1	Panasonic	ABLEBOND	ABLESTICK
					Au		7.112 x 7.112	6.35 x 6.35		X8410KA-RC	8290	8361J
PLCC52 HC11E0	HC11E0	M28Z	KLM	ATP1	1.3mils	1.0mils Cu	Solid Flag	Solid Flag	HITACHI GE1030F	Panasonic	ABLEBOND	ABLESTICK
PLCC52	HCTIEU	IVIZOZ	KLIVI	AIPI	Au	1.0IIIIIS Cu	6.55 x 7.26	6.35 x 6.35	HITACHI GE1030F	X8410KA-RC	8290	8361J
PLCC52	HC11E1	M28Z	KLM	ATP1	1.3mils	1.0mils Cu	Solid Flag	Solid Flag	HITACHI GE1030F	Panasonic	ABLEBOND	ABLESTICK
FLCC32	HCITEI	IVIZOZ	KLIVI	MIPI	Au	1.0IIIIIS Cu	6.55 x 7.26	6.35 x 6.35	HITACHI GE1030F	X8410KA-RC	8290	8361J
PLCC52	HC11E9	M28Z	KLM	ATP1	1.3mils	1.0mils Cu	Solid Flag	Solid Flag	HITACHI GE1030F	Panasonic	ABLEBOND	ABLESTICK
PLCC52	HCITES	IVIZOZ	KLIVI	AIPI	Au	1.0IIIII3 Cu	6.55 x 7.26	6.35 x 6.35	HITACHI GE1030F	X8410KA-RC	8290	8361J
PLCC52	HC711E20	M07Z	KLM	ATP1	1.3mils	1.0mils Cu	Solid Flag	Solid Flag	HITACHI GE1030F	Panasonic	ABLEBOND	ABLESTICK
PLCC52	HC/11E2U	WIU7Z	KLIVI	AIPI	Au	1.0IIIIIS Cu	9.552 x 8.225	10.03 x 8.51	HITACHI GE1030F	X8410KA-RC	8290	8361J
PLCC68	HC11F1	M88Y	KLM	ATP1	1.3mils	1.0mils Cu	Solid Flag	Solid Flag	HITACHI GE1030F	Panasonic	ABLEBOND	ABLESTICK
PLCCOS	HCIIFI	IVIOOT	KLIVI	AIPI	Au 1.01	1.0IIIIIS Cu	6.985 x 8.128	7.62 x 7.62	HITACHI GE1030F	X8410KA-RC	8290	8361J
PLCC84	HC711K4	N78E	ATP1	No change	1.2mils	1.0mils Cu	Solid Flag	No change	SUMITOMO G600	Panasonic	ABLESTICK	No Change
FLCC84	nc/11K4	IN/OE	76E AIPI	P1 No change	Au	1.011111S Cu	12.065 x 8.89	No change	SOIVII TOIVIO GOUU	X8410KA-RC	8361J	No change

#### **REASON FOR CHANGE**

Qualification of Subcon Amkor Technology Philippines (ATP1), Muntinlupa, Philippines Assembly Facility is to ensure customer supply assurance.

The conversion from Gold to Copper wire is required to mitigate against raw material cost increases and for supply assurance.

## ANTICIPATED IMPACT OF PRODUCT CHANGE(FORM, FIT, FUNCTION, OR RELIABILITY)

The form changes are summarized in above table. No Impact to fit or function. Reliability is equivalent or improved.

According to JEDEC Standard JESD46, lack of acknowledgement of this PCN within 30 days will be considered acceptance of change. To request further data or inquire about the notification, please enter a <a href="Support Case">Support Case</a>. Be aware that after you select this link to enter your request, you must choose the topic "Product Change Notification" once on the Salesforce page.

For sample inquiries - please go to www.nxp.com

QUAL DATA AVAILABILITY DATE: 31-Jan-2016

**QUALIFICATION STATUS:** IN PROCESS

**QUALIFICATION PLAN:** 

Will provide per request.

## **RELIABILITY DATA SUMMARY:**

Will provide per request.

## **ELECTRICAL CHARACTERISTIC SUMMARY:**

Comparison between NXP KLM, Kuala Lumpur, Malaysia and Subcon ATP1, Muntinlupa, Philippines will be made. Result will be available upon completion of qualification.

# **CHANGED PART IDENTIFICATION:**

There is no change to orderable part number. The Tracecode marking on the device includes assembly site and datecode. NXP will have traceability by assembly site and datecode.

For PLCC44/52/68, the current assembly site marking is (QQ) for NXP Semiconductor Kuala Lumpur assembly site and will change to (ZR) for the Subcon Amkor Technology Philippines (ATP1).

Below Cu KC parts are available for customers to order and will need 6 weeks' cycle time for delivery from customer order date.

Device	Production Part Number in KLM	Cu Sample Part Number in ATP1	Package Description
HC711E20	MC68711E20MFNE2	KC711E20MFNE2	PLCC52
HC11F1	MCHC11F1VFNE3	KC11F1VFNE3	PLCC68

Device	Production Part Number in ATP1	Cu Sample Part Number in ATP1	Package Description

HC711K4 SC711KC4VFNE4	KC711K4VFNE4	PLCC84	
<b>SAMPLE AVAILABILITY DATE:</b> 14-	Dec-2015		
ATTACHMENT(S):			
N/A			